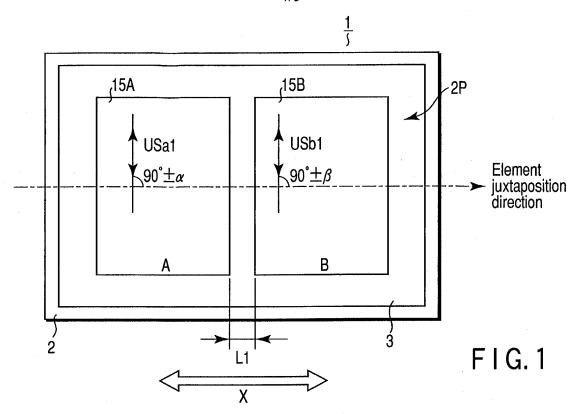
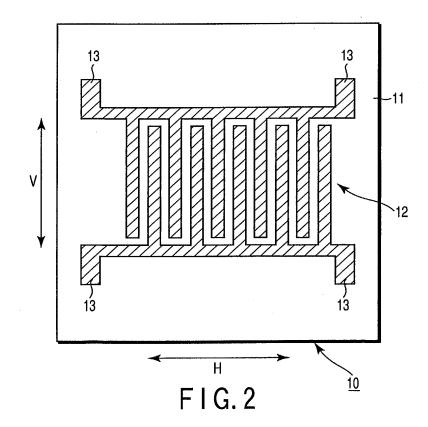


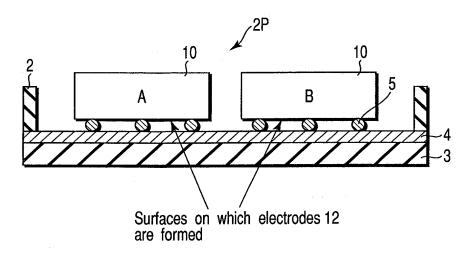
OBLON, SPIVAK ET AL.
INV: Rieko CHUJO
DOCKET # 217902US2S CONT
SHEET 1_ OF_3_



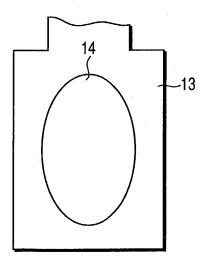








F I G. 3



F I G. 4

3/3

Start

Form conductive layer (aluminum alloy layer) on piezoelectric substrate 11 and etch it by using predetermined mask pattern to form comb electrode 12 and connection terminals 13

ST10

Arrenge metal bumps 5 on metalized layer 4, which are formed on die attach suface of base 3, at predetermined positions where metal bumps are joined to connection terminals 13 of surface acoustis wave element 10 (A or B)

-ST12

Hold/chuck surface acoustic wave element 10 and transfer it to predetermined element mount area (15A or 15B) on base 3

-ST14

Press surface of element 10 on which electrode 12 is formed against element mount area (15A or 15B) on base 3 such that ultrasound wave application direction (USa1 or USb1) becomes substantially perpendicular to juxtaposition direction (direction indicated by arrow x) of a plurality of surface acoustic wave elements 10 (A or B) and each connection termianl 13 of element 10 faces arrangement position of metal bump 5

-ST16

Join or bond connection terminals 13 of element 10 to predetermined portions of metalized layer 4 by pressing surface acoustic wave element 10 and simultaneously applying ultrasound waves to metal bumps 5

∠ST18

YES

any surface acoustic
wave element to be joined left on metalized
layer 4 formed on die attach surface

ST20

on base 3

NOT

Fit cap (not shown) on predetermined number of surface acoustic wave elements 10 (two elements, i.e., elements A and B, in this case) from above base 3 on which elements are mounted, and join or bond cap to side walls 2 around base 3

ST22

FIG.5

End